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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,508	08/18/2003	Shunichi Sekiguchi	2565-0273P	1661

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

VO, TUNG T

ART UNIT	PAPER NUMBER
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2621

NOTIFICATION DATE	DELIVERY MODE
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08/10/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/642,508

Applicant(s)

SEKIGUCHI ET AL.

Examiner

Tung Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/12/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 48-53 is/are pending in the application.
- 4a) Of the above claim(s) 1-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 48-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/09/09; 01/26/09; 02/03/09; 03/18/09;</u> | 6) <input type="checkbox"/> Other: _____ |
| <u>05/08/09</u> | |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 48-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haskell et al. (US 6,704,360) in view of Etoh (US 5,768,438).

Re claims 48 and 51, Boon teaches a moving picture decoding apparatus (336 of fig. 1, a decoder), comprising:

a memory (340 and 342 of fig. 1) for storing previously decoded image as reference image used for generating a prediction picture (344 of fig. 1);

a prediction picture generation section (344 of figs. 3 and 4; 252 and 358 of fig. 3), receiving indication information indicating one of a plurality of deformation methods (350 and 356 of fig. 3) and a motion parameter extracted from a bit stream (col. 6, lines 30-49, note Figure 5 shows if the target image 2014 is shifted by a vector A and rotated by a degree .theta. from the template 2010, parameters A and .theta. are produced from the deformation and displacement calculator 350), said prediction picture generation section (344 of fig. 3) generating the prediction picture using the reference image (368 and 370 of fig. 1) based on the deformation displacement calculation (350, 356, 520, and 528 of fig. 3), the deformation method being applied to the reference image as so to transform a portion of the reference image geometrically

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(350 of fig. 3, col. 6, lines 43-49, note an affine transformation is preferably used in the deformation and displacement calculator 350 to obtain the deformation and displacement parameters, but a transformation containing a term of the second degree may be alternatively used. The parameters, i.e., affine coefficients, obtained by the deformation and displacement calculator 350 are input together with the template 2010 to a predictive image generator 352); and

a decoding section (336 of fig. 1) for decoding a texture from the bit stream (1004 of fig. 1), and adding (338 of fig. 1) the texture to the prediction picture generated by the prediction picture generation section (344 of fig. 1) so as to obtain a decoded image (508 of fig. 1).

It is noted that Boon does not particularly teach identifying one of the deformation methods based on the indication information as claimed.

Etoh teaches identifying one of the deformation methods (305 of fig. 11, note the deformation synthesizer 305 has the same action as the deformation synthesizer 202 of fig. 10, col. 29, lines 1-5; fig. 14 for details) based on the indication information (304 of fig. 11, Deformation Parameter, note the deformation analyzer (201 of fig. 1) to take the correlation of plane expressing the luminance plane and the opacity, and extract a deformation parameter (DEFORMATION PARAMETER BIT STREAM of fig. 11) which is expressed by the affine transformation and the block movement, and the deformation synthesizer (202 of fig. 10, 305 of fig. 11) which forms a predicted image from the decoding result of the previous frame and the result of the deformation analyzer, the predicted image being composed of the luminance plane and plane).

Taking the teachings of Boon and Etoh together as a whole, it would have been obvious to one of ordinary skill in the art to modify the teachings of Etoh into the decoding apparatus of Boon for the coding efficiency and the image quality can be improved.

Re claims 50 and 53, Boon further discloses a plurality of memories (340 and 342 of fig. 1) for storing the reference image, each of the plurality of memories corresponding to at least one of the deformation methods (350 and 356 of fig. 3); wherein the prediction picture generation section (344 of fig. 3) generates the prediction picture based on the reference image stored in a memory of the plurality of memories which corresponds to the deformation method indicated by the indication information.

Re claims 49 and 52, Etoh (Boon modified by Etoh) further teaches transforming the reference image portion geometrically (604 and 605 of fig. 14) based on the deformation method (Deformation Parameter of fig. 11, 202 of fig. 10); and wherein the plurality of deformation methods are indicated by the indication information and used by the prediction picture generation section to generate the prediction picture include a parallel translation transform method (606 and 607 of fig. 14, note 606 and 607 performs the translational movement per block unit having a size of 16.times.16 pixels, with respect to the blocks divided into the length and the breadth 18.times.22 by the image block-deforming sections 608 and 609), an affine transform method and a perspective transform method (603 of fig. 14, note Simultaneously, the affine transformation parameter and the block translational movement component are separated by the demultiplexer 603).

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Wednesday, Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tung Vo/
Primary Examiner, Art Unit 2621